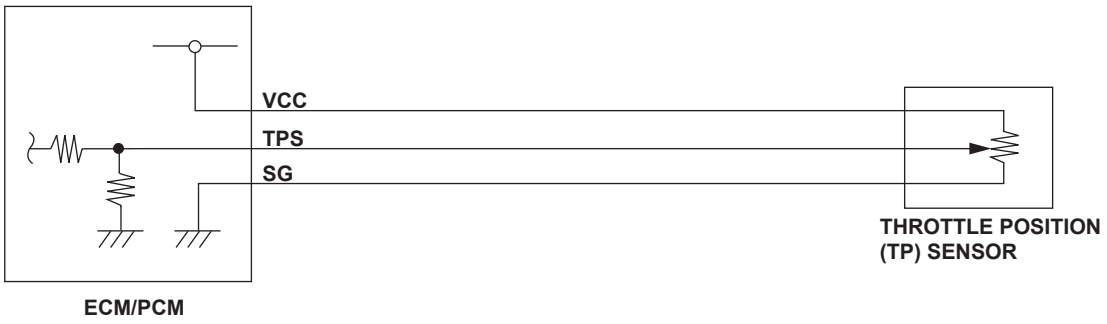
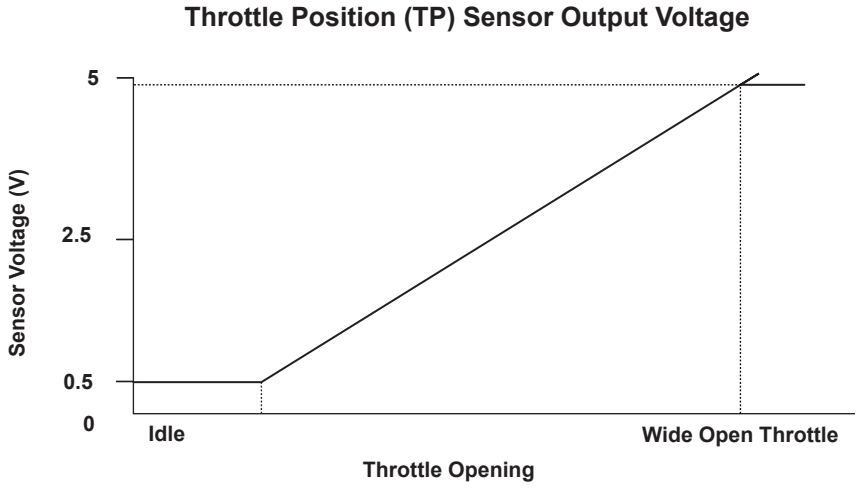
## **DTC P0123:** Throttle Position (TP) Sensor Circuit High Voltage




P0122-9601




P0122-9672

### General Description

The throttle position (TP) sensor is installed in the throttle body, and it detects the position of the throttle valve. This sensor includes a brush that moves with the throttle valve. The brush outputs voltage to the engine control module (ECM)/powertrain control module (PCM) that varies linearly with throttle position by sliding on a resistor. When accelerating or decelerating, the detection of the amount of intake airflow by the MAP sensor tends to be inaccurate due to rapid changes in throttle position. The TP sensor is used to correct the amount of airflow as it detects the throttle position. Also, the sensor is used for fuel cut-off operation to improve fuel economy and exhaust emissions when the throttle is fully closed during deceleration. The ECM/PCM monitors the throttle position (in degrees). If the output signal voltage from the TP sensor is excessively high, the ECM/PCM detects a malfunction and a DTC is stored.

### Monitor Execution, Sequence, Duration, DTC Type

| | |
|---|---|
| Execution | Continuous |
| Sequence | None |
| Duration | 2 seconds or more |
| DTC Type | One drive cycle, MIL ON |

## Enable Conditions

| Condition | |
|---|---|
| State of the engine | Running |
| No active DTCs | TP |

## Malfunction Threshold

The output voltage from the TP sensor is 4.9 V or more for at least 2 seconds.

## Diagnosis Details

**Conditions for illuminating the MIL**
When a malfunction is detected, the MIL comes on and the DTC and the freeze frame data are stored in the ECM/PCM memory.

**Conditions for clearing the MIL**
The MIL will be cleared if the malfunction does not recur during three consecutive trips in which the diagnostic runs.
The MIL, the DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.